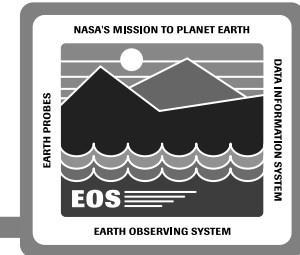


FOS Release A Summary

Andy Miller

21 October 1996

FOS CSR Roadmap



Overview Material

FOS Overview

- CSR Objectives
- FOS Status & Schedule

TRR Action Item Summary

- Review each TRR action item
- Present status of each

FOS System Status

FOS Release A Summary

- Release A Capabilities
- System Enhancements

FOS System Process Flows

- Test Procedure update
- Requirements check-off
- Build & Delivery
- NCR

EOC Installation Status

- Hardware status
- COTS status
- Open items

FOS Dry-Run Phase

Dry-Run Test Results

- Dry-Run Test Status
- Dry-Run Requirements Status
- Technical Issues and Liens

FOS Acceptance Test Phase

Acceptance Test Plans

- EOC test environment
- EOC test activities
- EOC test process

Audits

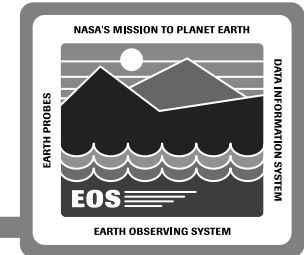
- VDD
- PCA and FCA

FOS Next Steps

Post-Acceptance Test

- External Eng'g Tests
- ECT #1
- IST Delivery

FOS Release Planning Drivers



Release A

Establish infrastructure early that is required for development

Establish basic connectivity internally and with external interfaces

Demonstrate basic telemetry and command processing

Support early informal engineering tests, interface testing and Spacecraft Tests (e.g., EOC Compatibility Test, 1/97)

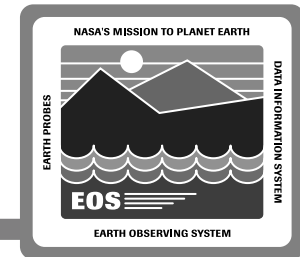
Release B

Expand system based on building blocks established in Release A

Support Spacecraft Training, Simulations

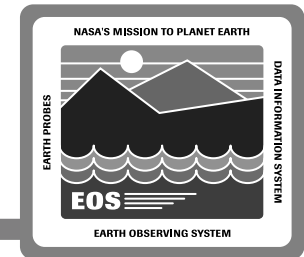
Support AM-1 launch

FOS Release A Capabilities



<div><div>Scheduling</div><div><div>Planning & Scheduling</div><div>BAP Definer Tool</div><div>Activity Definer Tool</div><div>Detailed Activity Schedule</div><div>Timeline Tool</div><div>ASTER I/F Filter</div><div>Command Mgt</div><div>Uplink Load Generation</div><div>ATC Load Generation</div><div>Ground Sched Generation</div><div>Load Manager</div><div>Microprocessor Loads</div><div>RTS Load Builder</div><div>Table Load Verification</div></div></div>	<div><div>Real-Time</div><div><div>Resource Mgt</div><div>String Manager</div><div>Command Authority</div><div>Ground Control Privilege</div><div>Telemetry</div><div>Decom Engine</div><div>Mirrored Telemetry</div><div>Parameter Server</div><div>Command</div><div>Cmd Validation, Generation, Uplink, and Notification</div><div>Real-Time Contact Mgt</div><div>NCC GCMRs</div></div></div>	<div><div>Analysis</div><div><div>FUI</div><div>Analysis Request Tool</div><div>Analysis Report Generation</div><div>Analysis</div><div>User Selected Statistics</div><div>Basic Analysis Request</div><div>Expert Advisor</div><div>Data Mgt</div><div>Data Archive</div><div>Retrieve Events</div></div></div>
<div><div>Support Services</div><div><div>ECL</div><div>Events</div><div>Help</div><div>Screen Management</div><div>Window Manipulation</div><div>Status Window</div><div>Display Builder</div><div>Procedure Builder</div><div>Room Builder</div><div>Time Selector</div><div>Ground Script Control</div><div>DB Edit</div><div>DB Generation</div><div>(Activities, Cmd, Tlm)</div></div></div>		
<div><div>Infrastructure</div><div><div>Message Passing</div><div>Security Services</div><div>Name Services</div><div>Directory Services</div><div>Network Services</div><div>Management Services</div><div>Interface Connectivity</div><div>Time Services</div></div></div>		

FOS Release B Capabilities



Scheduling

Planning & Scheduling

Timeline Tool
Planning Aids Mgt
TDRS Scheduling
Activity Constraint Check
What-If

Schedule BAPs

Command Mgt

Cmd Constraint Check
Load Catalog and Reports
RTS Load Manager
Generate Patch Loads
Memory Mgt/Compares

Real-Time

Resource Mgt

String Cfg Change Requests
Resource Monitor
Failure Recovery

Telemetry

Derived Parameters, Selective
Decom, Tailored Telemetry
S/C State Check
Memory Dump

Command

Cmd Verification
Load Processing

Real-Time Contact Mgt

NCC ODMs, EDOS CODAs

Analysis

FUI

Standing Orders

Analysis

Clock Correlation
Solid State Recorder Mgt
S/C Activity Log
System Statistics
User-Defined Algorithms

Data Mgt

Triggers
Queue Mgr

Support Services

User Customization
E-Mail
Document Reader

Report Browser/Editor Tool
Quick Msg & Analysis
Display Builder (schematics)

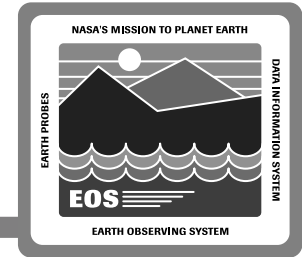
DB Backup/Restore
Quick Analysis
Event History Tool

DB Reporting
Info Window
Data Mover

Infrastructure

Release A Capabilities
Additional Management and Communication Services

FOS System Changes



Telemetry (Performance Enhancement)

- **Decommuration process streamlined into 1 set of processes for each of the two possible telemetry sources (I and Q channel)**
 - Each process listens for and can process either housekeeping, health and safety, or standby telemetry type
 - 1 telemetry type at a time per channel

Data Management

- **Web browser (Usability Enhancement)**
 - Event definitions and event history retrieval
 - Spacecraft orbit events
 - Name Server end-point identification and reporting
 - Parameter Identification (PID) definition
 - Security provided (user, IP filtering)